

Brux. 10: —, is based on a leafy specimen, the authors' own statement being "amenta ignota." Their description does not disagree with our plant, and the fact that both were collected in the same region and approximately at the same altitude, warrants the conclusion that they belong to the same species.

As will be seen, the above description is drawn from a staminate branch at anthesis and a pistillate branch when the capsules are mature. They are Mr. Pringle's no. 6794.

This species belongs to the *Cordata* group and is closely related to *S. lasiolepis* of California, from which it differs in having free hairy filaments, hairy pedicels, elliptical leaves, and large catkins.—W. W. ROWLEE, *Cornell University*.

A PECULIAR CASE OF SPORE DISTRIBUTION.

(WITH FIGURE 1.)

THE manner in which the spores of fungi may be distributed is clearly shown in a case which came under observation last September, in Columbus, Ohio. A grape vine, quite thoroughly infested with the mildew, *Uncinula necator* (Schw.) Burr., showed its characteristic circular spots in profusion. This was the condition over about two-thirds of the one affected vine, and the appearance of these leaves is shown in *a*, *fig. 1*. In the remaining third of the leaves the fungus forsakes its habit of concentric growth and follows a tortuous path, of the greatest irregularity and grace, as shown in *b* and *c*, *fig. 1*. A microscopic examination proved the fungus to be identical in the two cases, and the explanation of its diversity of habit must be sought in the mode of infection of the leaf surface. Holding the leaf in the light one can see, extending even beyond the fungus in its onward march, a glistening track ready for its approach. The peculiar gleam and the characteristic windings are almost proof that it was made by some animal crawling over the leaf and leaving a trail of its glutinous secretion. Sections show the track to be purely superficial, and we are led to conclude that this animal, be it worm or snail, has first visited leaves bearing mature asci and spores or conidia, and then, with its body laden with them, has crawled over another leaf in a tortuous path, freely sowing the spores, which promptly develop. The resulting white mycelium and conidia plainly mark the track.

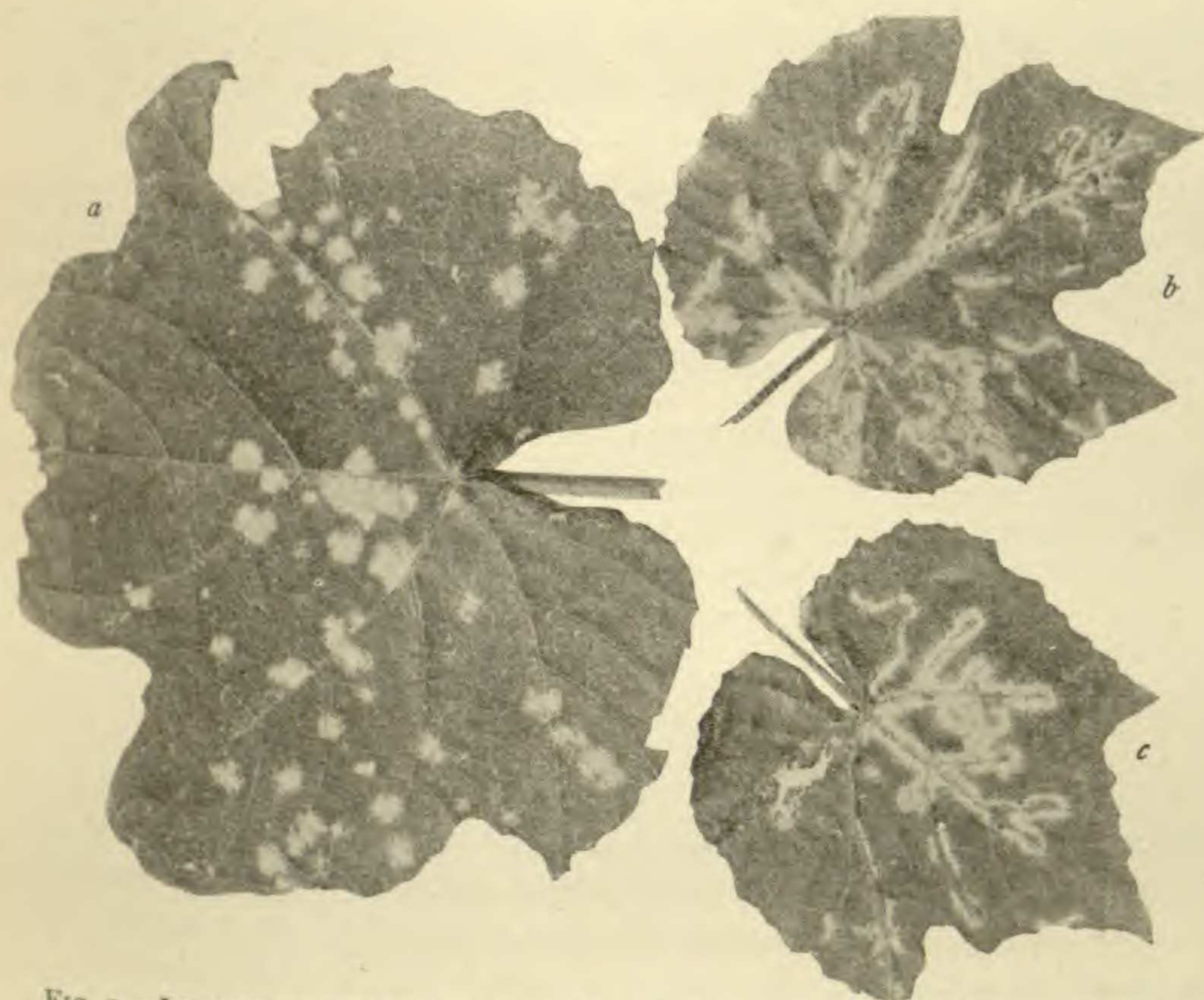


FIG. 1.—LEAVES OF GRAPE VINE; *a* showing usual infection of *Uncinula*; *b*, *c* showing infection, by crawling animal.

The photograph from which the figures were made was kindly prepared by Mr. M. B. Griffith of Columbus, Ohio.—F. L. STEVENS, *The University of Chicago*.

A NEW SILPHIUM.

Silphium lanceolatum, n. sp.—Stems about three feet high, slender, glabrous, striate, bearing a few small partly clasping bracts: leaves all at or near the base of the stem on long and slender petioles, lanceolate in outline, acute at summit, and very tapering at the base, thin but coarse, somewhat undulate toothed or nearly entire, four to eight or more inches long, the edges and midrib beneath somewhat hairy, otherwise smooth: heads few (one to three as far as seen), terminating the long slender branches or main stem, the former of which are bracteate at base and bibracteate an inch or two above: involucre very smooth, the outer scales orbicular, the inner (three or four) oblong and twice as long as the outer, obtuse and thin at summit: achenia broadly